Abstract
Transformative learning can lead to great awareness of one's own and others' personal perspectives and result in changes in how participants understand important social issues and how they choose to take action or not. Three examples of Extension teaching that embrace transformative learning are presented: a phenomenological approach to interaction with landowners; forest story cards; and scenario planning. These tools have been shown to be useful in forestry and may be useful in many Extension disciplines.

Introduction
One role of Extension education is to address complex social issues through educational programming. A challenge that Extension educators must overcome when focusing on social issues relates to engaging the audience in dialogue for social change. Franz (2007) suggests that in its transformation from simply providing education that meets individual needs to addressing larger societal issues, "Extension create opportunities for learners to experience disorienting dilemmas, critically reflect on their assumptions, and facilitate how to learn not just what to learn" (Abstract). Franz suggested that tools grounded in transformative learning theory should be used by Extension educators to address complex social issues. Cranton (1994), Mezirow (1991, 2000), and Taylor (2008) suggest that transformative learning can lead to greater awareness of one's own and others' personal perspectives, resulting in changes in how participants view and act in the world.

Traditional methods for generating discussion or gathering information from forest landowners or the public include surveys, interviews, and field visits. However, the need for better tools to foster interactive dialogue and understanding with diverse audiences is long standing (Luloff & Elmendorf, 2001) and critical for understanding individual values and needs.

Three examples of Extension teaching that incorporate elements of transformative learning are presented. The first is an example of how phenomenology can be used to create the foundation for
interactions between forestry professionals and landowners. Phenomenology is the study of lived experience (Kvale, 1983; Polkinghorne, 1989; Thomas & Pollio, 2002). The second is an overview of teaching using forest story cards. The third provides an overview of scenario planning as a means to examine one's own and others' personal perceptions to address forest restoration along the North Shore of Lake Superior in Minnesota. Each of these approaches can be used alone or in combination to build dialogue, find solutions to complex social issues and begin a process toward social change.

While the Extension teaching examples presented in this article are focused on the discipline of forestry, each of the methods: phenomenology, story cards, and scenario planning, has been used in other content areas. Approaching Extension education from a phenomenological perspective answers "yes" to the question raised by Raison (2010) in his Journal of Extension Commentary: "Should Extension help communities fulfill their goals and objectives by acting as facilitators or co-conveners, rather than simply as educators who transfer knowledge?" The use of photos is described by White, Sasser, Bogren, and Morgan (2009) for use in evaluation. Domaingue (1989) describes the use of ethnographic futures research, a type of scenario planning in community development. Uses of scenario planning in the disciplines of agriculture, financial and resource management, and Extension administration have also been reported in the Journal of Extension (O'Neill, 2008; Rowntree, Raven, Schweihofe, Buskirk, & Cloyn, 2012; Sobrero, 2004).

Using Phenomenology to Change the Woodland Owner—Natural Resource Professional Dynamic

Phenomenology may be used as a starting place to change the dynamic of the woodland owner (WO), natural resource professional (NRP) interaction. Phenomenology provides an understanding of how people experience events through understanding those persons' descriptions of their experience.

Experience and research indicate the relationships between WOs and NRPs may be problematic because both are trying to do their best for the other without always understanding the other's objectives, driving influences, and actions (Geiger & Voege, 2003; Muth, Pavey, Steiner, Ostermeier, & Fly, 2002; Parker, 1992). The assumption is that landowners must be educated through a transfer of knowledge from natural resource professional to woodland owner. This assumption has historically guided many woodland owner educational efforts.

The interaction between WOs and NRPs is often predicated on an expert-client interaction. NRPs have technical training, academic expertise, and resources that allow them to suggest solutions to on-the-ground issues. In interactions with landowners, there is a one-way transfer of information from NRPs to WOs for land management activities. At times, this expert-client orientation has set up a hierarchy between WOs and NRPs. Professional education and training perpetuates this imbalanced interaction. NRPs wonder why their advice is not taken more often, why so many plans are written for a forestland but never acted on, and why a WO would do something "bad" for the land when the expert advised something else. Many times the common understanding is simply missed.

At fault in this interaction are the assumptions that 1) the knowledge transfer is one-way; 2) the skills and education of the NRP are more valuable than the values and experience of the WO; and 3) the NRP has all the answers. By approaching the relationship with the expectation of a more collaborative interaction, new opportunities for learning and action emerge. NRPs have to understand
what WOs value about their land. NRPs have to understand their concerns, and they have to know WOs' long-term plans for the land—their hopes and dreams. Once these are known, NRPs have the skills to help WOs translate those values, concerns, hopes, and dreams into action.

When undertaking a phenomenological interview, data is collected through questions that invite description rather than explanation. The interview begins with a general question concerning the experience, for example, "Tell me a story that stands out to you of a time when you were on your land," and then flows into a conversation that is directed by the responses of the participant (Pollio, Henley, & Thompson, 1997). Throughout the conversation, central issues for the participant will emerge, providing insight into the meanings the participants have attached to their experiences.

Participants are asked to describe the experience as it was lived rather than giving an abstract account (Polkinghorne, 1989). Conversation continues around the experience until the story is "done" and the participants feel they have exhausted their description. The interviewer then attempts to distill the essence of the interview and discover what was meaningful for the participant, through repetition of words or phrases or strength of language used. Themes are supported by the participant's words (Pollio, Henley, & Thompson, 1997). If multiple individuals are interviewed regarding the same experience, the interviewer compares themes across all participant interviews, seeking themes that are common to the experience. Outcomes of this analysis include: insights into the following.

- Values and attitudes through an in-depth understanding of the participant's experience;
- A collection of "stories" that provides practitioners with a new understanding;
- A relationship created between interviewer and participant that can be built upon later.

For example, in 2006, as part of a graduate level course in applied phenomenology, students conducted phenomenological interviews with WOs to understand how they experience their land. Willing WOs were asked to describe an experience that stands out to them about a time when they were on their land. WOs told the students stories about their experience. Out of the stories came themes—common aspects and values across the landowners' experiences.

The primary theme for the interviewees was their experience of their land as a connection with others. "Others" were integral to their land experience. On one end of the continuum the land is a getaway, "Being out there by myself, it takes the pressure off." On the other end of the continuum was an invitation to others to come and enjoy the land with us, "It's what keeps us together all the time... It's just a place for all of us to bond." A secondary theme was the idea of use and enjoyment of the forest as a resource. This theme ran the gamut from intangible to tangible uses: "It's good therapy—a lot better than going to the shrink as far as I'm concerned" to awe at what comes out of the woods, "I'm just amazed at what the forest produces." A lesser theme was around the idea of management: "Proper management is doing the right thing." In this class project, students learned how to set to one side their own viewpoints about forest management and learn about the WOs experiences.

From a practitioner's point of view, an NRP's usual approach is to begin the conversation with a WO
with the theme of management—doing the right thing for the land. But when a WO shares a story about their land, their own values are made more explicit and offer new venues for entry into a productive conversation that may move WOs to a place of improved management of the resource. However, it does so in a way that meshes closely with what is most important to the owners.

Practically speaking, not every NRP has the time to do a phenomenological interview. However, there are simple ways to start a different kind of conversation. Questions such as, "What means the most to you about your land?" or "What do you like about your land?" open a conversation in a more relational way as opposed to asking, "What do you want to do?" or "What are your objectives for your land?"

Studies have demonstrated that WOs who engaged with NRPs in a collaborative learning environment valued the opportunity to delve deeply into areas of concern for themselves and their community and felt they created new possibilities for action in the future (Kerlin, 2008; Muth, 2004). The role of "expert" does not always help create new understandings. By fostering collaborative interactions, starting with a simple conversation about what WOs value about their land, NRPs can support and encourage transformative learning experiences.

**Forest Story Cards**

While phenomenological interviews are one way to increase understanding of values and the underlying meaning of experiences, sometimes participants struggle to think of a story to tell or perhaps distrust the person asking the questions and do not share openly. There are other approaches that may be as successful at getting to landowners' values.

Forest Story Cards use images to engage participants in dialogue (Smith, 2010). The images include photographs depicting: forest management, water resources, forest products, hunting, wildlife, recreation, and multi-generational interaction. Each of these categories was selected by Smith (2010) to represent the interests and concerns of forest landowners and the public, thus providing opportunities for learning. Along with the images, a set of guiding questions is used to help a facilitator use the cards (Smith, 2010). Participants answer the questions by selecting three cards that depict or illustrate what they value, know, or believe, along with their verbal explanation as to why they chose the images. A "wild card" is also included to allow a person the opportunity to express something they cannot find represented by the images (Smith, 2010). The facilitator takes notes and actively listens without interjecting until the participant is finished answering all the questions, after which a dialogue around their responses can begin based on the participant’s responses. Many teachable moments for both the facilitator and the participant may occur during this dialogue.

Field testing has yielded valuable information and insights about the usefulness of the cards. Most non-professional field-testers (master forest landowners working with their neighbors or groups of youth) find the cards effective and easy to use, but perhaps predictably, some natural resources professionals (state service foresters working with landowner clients) still prefer their traditional method of meeting on-site with landowners. All field testers agree that the cards provide a simple method for initiating dialogue with individuals unfamiliar with forestry terminology and a useful tool for exploring ownership objectives and aspirations to recommend future action. While additional
testing is needed to measure landowner preferences for using this visual survey method versus more traditional communication approaches, Forest Story Cards are being effectively employed to initiate dialogue with landowners, youth and future forest landowners. For more details about forest story cards and their use, see the Journal of Extension article "Forest Story Cards: A Visual Survey Tool," http://www.joe.org/joe/2010april/iw6.php.

Scenario Planning

Another approach being used to encourage dialogue and transformative learning is scenario planning. Scenario planning was incorporated into a forest restoration program. Using scenarios, 14 program participants discussed their perceptions of the forests of the Minnesota's Lake Superior North Shore as they were in 1960 and as they might be in 2060. Five constructs were used to facilitate discussion: natural, social, political, economic, and technological. Ultimately, the participants created a story about the forest and its fate. This story was then used to engage participants in dialogue about restoration options. This story, Lost Forest Found may be found at www.myminnesotawoods.umn.edu.

The scenario planning process allowed participants' viewpoints and ideas to emerge. Participants learned about key issues related to the restoration of forests along the North Shore of Lake Superior and focused their awareness on the need to take action. These actions included planting trees on their own property, work in their communities to reduce the spread of invasive species, and engaging others in discussion about the need for restoring the forest. For example, some participants became active in organizing and teaching educational programs within their communities. One landowner took it upon himself to contact public agencies that own or control lands along the North Shore in order to encourage them to plant trees. Some participants volunteered to assist with watershed-based education programs involving University of Minnesota Sea Grant and forestry Extension along the Lake Superior shore. One participant is now an instructor helping teach a class on intergenerational land transfer. Scenario planning goes beyond an expert model of teaching and engages learners in a transformative process leading to community action.

Implications for Extension

The three examples described, phenomenology, story cards, and scenario planning, encourage the transformation of perspectives. This transformation may lead to action. Mezirow (2000) states,

> In adulthood, knowing how you know involves awareness of the context—sources, nature, and consequences—of your interpretations and beliefs and those of others. In adulthood, informed decisions require not only awareness of the source and context of our knowledge, values, and feelings but also critical reflection on the validity of their assumptions or premises. (p. 7)

Extension educators can engage participants in dialogue for transformative learning. The three approaches described provide options for learning that may be useful in other Extension disciplines. Each of these approaches can be applied individually or in group settings. While a phenomenological approach is largely focused on the individual's experience of a phenomenon, group discussion about
the phenomenon can be used to facilitate broader understanding and learning. As educators, we can encourage transformative learning by providing the learner and the learning helper the means to examine their own ways of knowing. By starting with participant meanings and understanding, possibilities open for new ways of interaction, ownership of the learning process, and action.

**References**


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